

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Virginia Electric and Power Company

Docket Nos. ER08-1207-000
ER08-1207-001

(Issued September 8, 2008)

Attached is a separate statement by Commissioner Wellinghoff dissenting to an order issued on August 29, 2008, in the above-referenced proceeding. *Virginia Electric and Power Company* 124 FERC ¶ 61,207 (2008).

Kimberly D. Bose,
Secretary.

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WELLINGHOFF, Commissioner, dissenting:

I dissent from this order for two major reasons. First, I am concerned that the majority's approach to reviewing VEPCO's requests for incentive ROE adders further undermines the nexus requirement that is an essential component of Order No. 679. Second, I believe that the majority places inadequate emphasis on VEPCO's proposed use of advanced technologies in assessing the risks and challenges that may warrant an incentive ROE adder for a project. For these reasons, I disagree with the majority's decision to grant VEPCO's full request for incentive ROE adders.

As I have noted before,¹ the Commission sought in Order No. 679-A to alleviate concerns that the nexus requirement for incentive requests was not sufficiently rigorous. The Commission stated clearly that not all projects would be able to meet the nexus requirement.² The Commission also stated that the most compelling cases for incentive ROE adders are new projects that present special risks or challenges, not routine investments made in the ordinary course of expanding the system to provide safe and reliable transmission service.³ More generally, the Commission clarified that it did not intend to grant incentive ROE adders "routinely."⁴

Unfortunately, it is difficult to see these principles from Order No. 679-A in the majority's approach to reviewing VEPCO's requests for incentive ROE adders. For example, the majority finds that VEPCO has demonstrated a nexus between the 125 basis point adder request for the Garrisonville Line and Substation project and the investment to be made in that project. To support that finding, the majority states twice that the project is "not routine," adding only that the project "will increase regional reliability and involves substantial construction risk due to the difficult terrain on which

¹ See *Commonwealth Edison Co.*, 122 FERC ¶ 61,037 (2008) (dissent in part of Commissioner Wellinghoff at 3-4).

² Order No. 679-A at P 60.

³ *Id.* P 23, 60.

⁴ *Id.* P 7, 67.

it will be constructed.”⁵ Thus, the majority suggests that a benefit to reliability, which arguably would stem from virtually any project, and the presence of “difficult” terrain is a sufficient basis to find that a project satisfies the nexus requirement. This approach falls far short of the commitment set forth in Order No. 679-A. Indeed, the majority’s willingness to find that the nexus requirement is satisfied on this basis cannot be squared with the Commission’s pledge not to grant incentive ROE adders “routinely.”

Similarly, the majority finds that VEPCO has demonstrated a nexus between the 125 basis point adder requested for the Dickerson-Pleasant View Reconductor project and its investment in that project. In reaching that conclusion, the majority again states twice that the project is “not routine”. The entirety of the majority’s support for those statements is that the project is a PJM RTEP baseline project that is presumed to provide regional benefits, and that the project “will require coordination between multiple utilities and other transmission line projects.”⁶ These minimal claims are insufficient to find that a project is non-routine or otherwise satisfies the nexus requirement. I reiterate that, contrary to the majority’s approach here, a rigorous nexus requirement is essential to ensuring that rates including an incentive ROE adder are just and reasonable.⁷

My second concern with this order is that the majority continues to place inadequate emphasis on the proposed use of advanced technologies in assessing the risks and challenges that may warrant an incentive ROE adder. I believe that consideration of advanced technologies and their associated risks and challenges is an appropriate component of the nexus analysis that the Commission conducts in evaluating applications for incentives under Order No. 679.⁸ I have also stated that, to comply with the technology statement requirement of Order No. 679, I expect applicants for incentive ROE adders to provide a thorough and complete evaluation of the feasibility of using state-of-the-art technologies in the projects for which they are seeking incentives.⁹

The majority notes that “VEPCO’s proposed investment in advanced transmission technologies like synchrophasors, transformer sensors, and advanced communications equipment to carry the resulting data may enhance its ability to

⁵ 124 FERC ¶ 61,207 at P 77.

⁶ *Id.* P 105.

⁷ *See Bangor Hydro-Electric Co.*, 122 FERC ¶ 61,265 (2008) (concurrence in part and dissent in part of Commissioner Wellinghoff at 2-3).

⁸ *See, e.g., Potomac-Appalachian Transmission Highline, L.L.C.*, 122 FERC ¶ 61,188 (2008) (dissent in part of Commissioner Wellinghoff at 1-4); *Northeast Utilities Service Co.*, 124 FERC ¶ 61,044 (2008) (dissent of Commissioner Wellinghoff at 2-3).

⁹ *See, e.g., American Elec. Power Serv. Corp.*, 118 FERC ¶ 61,041 (2007) (concurrence of Commissioner Wellinghoff at 6, citing Order No. 679 at P 302).

perform wide-area monitoring of the bulk power system and to identify and react to emergency situations more rapidly than might otherwise be possible.”¹⁰ I agree with that statement. I am disappointed, however, that the majority otherwise ignores VEPCO’s proposed use of advanced technologies in reviewing this request for incentive ROE adders.

In section 1223 of EPCRA 2005, the Congress required the Commission to “encourage, as appropriate, the deployment of advanced transmission technologies.” The Congress defined “advanced transmission technology” to mean a technology that increases the capacity, efficiency, or reliability of an existing or new transmission facility. The Congress identified 18 such technologies and stated that the term also covers other technologies that the Commission considers appropriate.¹¹

I have previously discussed my view of the relationship between section 1223 and section 1241 of EPCRA 2005, which created section 219 of the FPA and pursuant to which the Commission issued Order No. 679.¹² In Order No. 679, the Commission highlighted the relationship between these provisions by requiring applicants for incentives to provide a “technology statement that describes what advanced technologies have been considered and, if those technologies are not to be employed or have not been employed, an explanation of why they were not deployed.”¹³ VEPCO also acknowledged that relationship in its application, discussing in some detail how aspects of the projects for which it is seeking an incentive ROE adder reflect technologies listed in section 1223.¹⁴

It is important to recognize that in “encourag[ing], as appropriate, the deployment of advanced transmission technologies,” as required by section 1223, the Commission may find that certain technologies are more “advanced” than others because they are more innovative as compared to existing practices. The Commission also may find that certain advanced technologies provide more important benefits than others. Where the Commission makes such findings, the Commission also may determine that greater incentives are warranted for more advanced technologies, as compared to technologies that have become widely used in the industry, or for advanced technologies that provide more important benefits. In short, the Commission’s evaluation of applicants’ Order No. 679 technology statements and of risks and

¹⁰ 124 FERC ¶ 61,207 at P 127.

¹¹ 119 Stat. 953-54.

¹² See, e.g., *Commonwealth Edison Co.*, 122 FERC ¶ 61,037 (2008) (dissent in part of Commissioner Wellinghoff at 1-3); *Northeast Utilities Service Co.*, 124 FERC ¶ 61,044 (2008) (dissent of Commissioner Wellinghoff at 2-3).

¹³ Order No. 679 at P 302.

¹⁴ Exhibit No. DVP-8 at 8-9, 17, 24, 37, 43-44, 51-52, 56, 60-61, 64-65, 68-69, 71; Exhibit No. DVP-10.

challenges associated with the proposed use of advanced technologies must be a dynamic process that takes into account both evolving practices in the industry and technological improvements.

In its Order No. 679 technology statement, VEPCO classifies its proposed use of advanced technologies under four headings: (1) conductor technologies, (2) gas insulated bus (GIB) technology, (3) underground technologies, and (4) substation automation technologies.¹⁵ VEPCO proposes to use different combinations of these technologies in the eleven projects for which it is seeking an incentive ROE adder.

With respect to conductor technologies, the third item listed in section 1223 is “advanced conductor technology (including advanced composite conductors, high-temperature low-sag conductors, and fiber optic temperature sensing conductors).”¹⁶ VEPCO states that three types of high temperature/high capacity conductors are currently receiving attention within the industry: 3M’s Aluminum Conductor Composite Reinforced (ACCR) conductor, Composite Technology Corporation’s Aluminum Conductor Composite Core (ACCC) conductor, and Southwire’s Aluminum Conductor Steel Supported (ACSS) HS-285 conductor. VEPCO further states that all of these conductors are enhancements of the ACSS technology, and that VEPCO “has routinely used ACSS conductor to upgrade transmission lines” VEPCO proposes to use the ACSS HS-285 conductor on the Dickerson-Pleasant View Reconductor project and to use ACSS conductor on the Idylwood-Arlington Reconductor project.¹⁷

Based on the record in this proceeding, I believe that VEPCO has demonstrated that risks and challenges associated with the Dickerson-Pleasant View Reconductor project, including the use of ACSS HS-285 conductor, warrant a 50-basis-point incentive ROE adder. I reach that conclusion despite my above-noted disagreement with the majority’s basis for finding that this project is not routine and, therefore, is worthy of an incentive ROE adder. By contrast, I do not believe that VEPCO has demonstrated that the Idylwood-Arlington Reconductor project warrants an incentive ROE adder. As Indicated Customers state in their protest,¹⁸ VEPCO’s discussion of ACSS technology relative to the ACSS HS-285 conductor suggests that the company’s proposed use of ACSS technology should not be viewed as applying an “advanced conductor technology” as that term is used in section 1223.

With respect to GIB technology, VEPCO proposes to replace an existing four-breaker GIB ring bus with a six-breaker GIB ring bus as part of its Glen Carlyn

¹⁵ Exhibit No. DVP-10.

¹⁶ 119 Stat. 953.

¹⁷ Exhibit No. DVP-10 at 4-5.

¹⁸ Indicated Customers Protest at 16-17.

Insulated Bus project.¹⁹ VEPCO states that a GIB is comprised of high voltage conductors, circuit breaker interrupters, switches, voltage transformers, and current transformers inside a grounded metal enclosure that is filled with SF₆ high dielectric gas.²⁰ VEPCO states that its proposed use of GIB modular equipment in the Glen Carlyn Insulated Bus project is consistent with the sixth item listed in section 1223 (modular equipment) and makes maximum use of the limited substation area available to the company.²¹ Indicated Customers argue, however, that the GIB equipment that VEPCO proposes to use in the project cannot be viewed as an advanced technology within the meaning of section 1223 inasmuch as VEPCO has been using that technology at the Glen Carlyn site for 26 years.²² I agree with Indicated Customers that VEPCO has not demonstrated that risks and challenges associated with its proposed use of GIB technology in the Glen Carlyn Insulated Bus project warrants an incentive ROE adder.

With respect to underground technologies, VEPCO states that it plans to implement XLPE cable technology for underground cable in three projects that involve 230 kV lines: the Garrisonville Line and Substation project, the Pleasant View-to-Hamilton Line, and the Lexington Tie Arrangement. VEPCO states that “the use of XLPE cable at higher voltages (*i.e.*, 230 kV and above) is a recent development in the United States of America, but it is gaining increasing acceptance.”²³

I have previously stated that although XLPE underground cable technology is not new, it has only recently been used at 345 kV and higher voltage levels and its use may reduce the time and costs associated with both installation and maintenance of transmission facilities.²⁴ For those reasons, I have also stated that the use of XLPE underground cable technology on a 345 kV line as part of a package of advanced technologies would have warranted granting a 50-basis-point incentive ROE adder, but for facts related to a past case’s unusual procedural history that are not present here.²⁵ It is possible that risks and challenges associated with VEPCO’s proposed use of XLPE underground cable technology at the 230 kV voltage level also would warrant an incentive ROE adder. However, I do not believe that the record in this proceeding includes adequate information to determine whether that proposed use should be viewed as an advanced technology in connection with section 1223. Recognizing that a desire for regulatory certainty is an important aspect of applicants’ requests for incentives,

¹⁹ Exhibit No. DVP-8 at 54

²⁰ Exhibit No. DVP-10 at 7.

²¹ Exhibit No. DVP-8 at 56.

²² Indicated Customers Protest at 17-18.

²³ Exhibit No. DVP-10 at 6.

²⁴ *The United Illuminating Company*, 119 FERC ¶ 61,182 (2007) (dissent in part of Commissioner Wellinghoff at 1-2).

²⁵ *Id.* at 2.

rather than setting this issue for hearing, I would have directed our staff to send VEPCO additional questions on this issue to build a more complete record.

Finally, VEPCO identifies ten components of substation automation technologies: fiber optic communications, microprocessor based protective relays, synchrophasor data, frequency monitoring network, data communications systems, transformer monitors, geomagnetic disturbance monitoring, TWS fault location system, breaker logic annunciators, and synchronous switching controls. VEPCO states that these components reflect the fourteenth (enhanced power device monitoring), fifteenth (direct system state sensors), sixteenth (fiber optic technologies), and seventeenth (power electronics and related software, including real time monitoring and analytical software) items listed in section 1223. VEPCO proposes to use various combinations of these substation automation technologies in nine of the projects for which it is seeking an incentive ROE adder, the two exceptions being the above-noted Dickerson-Pleasant View Reconductor project and the Idylwood-Arlington Reconductor project.²⁶

Indicated Customers argue that VEPCO has not shown that these substation automation technologies are advanced, contending that they are “conventional and routine monitoring technologies for 500 kV and 230 kV facilities that have been used for years, if not decades, by electric companies to meet standard good utility practice requirements.” Indicated Customers further argue that providing an incentive ROE adder for the use of such systems “would simply reward Dominion for meeting the industry status quo rather than promote truly innovative technologies.”²⁷

In evaluating VEPCO’s proposed use of these technologies for purposes of its requested incentive ROE adder, I believe it to be noteworthy that the Congress recently highlighted the importance of developing a Smart Grid. Section 1301 of the Energy Independence and Security Act of 2007 states that “[i]t is the policy of the United States to support the modernization of the Nation’s electricity transmission and distribution system to maintain a reliable and secure electricity infrastructure that can meet future demand growth and to achieve each of the following, which together characterize a Smart Grid.” The ensuing list of 10 characteristics includes “increased use of digital information and controls technology to improve reliability, security, and efficiency of the electric grid” and “deployment of ‘smart’ technologies ... for metering, communications concerning grid operations and status, and distribution automation.”²⁸

²⁶ Exhibit No. DVP-10 at 2-4.

²⁷ Indicated Customers Protest at 14.

²⁸ The Energy Information and Security Act of 2007 is available on the website of the U.S. Senate Committee on Energy and Natural Resources:

Much of what VEPCO identifies as components of substation automation technologies could contribute to the foundation of the Smart Grid, as could the distributed temperature sensing fiber optic cable that VEPCO states it will install in all of its new underground transmission lines.²⁹ In that event, I believe that risks and challenges associated with these technologies would warrant a significant incentive ROE adder.

The concerns raised by Indicated Customers, however, deserve further consideration before the Commission grants VEPCO an incentive ROE adder to reflect risks and challenges associated with these technologies and the benefits that these technologies may provide. Again recognizing that a desire for regulatory certainty is an important aspect of applicants' requests for incentives, rather than setting this issue for hearing, I would have directed our staff to send VEPCO additional questions on this issue to build a more complete record.

For these reasons, I respectfully dissent.

Jon Wellinohff
Commissioner

http://energy.senate.gov/public/index.cfm?FuseAction=IssueItems.Detail&IssueItem_ID=f10ca3dd-fabd-4900-aa9d-c19de47df2da&Month=12&Year=2007.

²⁹ Exhibit No. DVP-10 at 7.